

PHY1012F: Physics A for Engineers Revised Course Information: 2020

PHY1012F: Physics A for Engineers (Mechanics & Thermodynamics) is a half-year course for first-year students registered in the Faculty of Engineering and the Built Environment.

As a consequence of UCT's emergency response to the COVID-19 pandemic, all lectures, laboratories and tutorials will take place in an online (distance learning) mode for the second quarter (Q2).

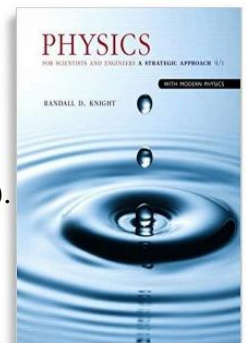
All course information and Announcements are posted on the [PHY1012F Vula site](#). Announcements are emailed to students' *UCT email addresses*, which must therefore be active and working!

Syllabus

The syllabus is that of a standard calculus-based introductory physics course for engineers. Details can be found on the PHY1012F Vula site under [Course Outline](#).

Textbook

The prescribed text for PHY1012F / PHY1013S is Randall D. Knight, *Physics for Scientists and Engineers, A Strategic Approach* (4th Ed). Pearson, Addison Wesley. (Earlier editions will usually suffice.)



Course Coordination

- The PHY1012F **Course Convener** is Mr Dieter Geduld.
(Room 3.05, RW James Building, email: dieter.geduld@uct.ac.za).
All administrative queries should be directed to him.
- All queries about material covered in lectures should be referred to the current lecturer.

The PHY1012F **Course Tutors** are Paul Orim (ormpau001@myuct.ac.za) and Matthew Segal (mattiti@gmail.com), who will be available at designated times (see Vula under Resources/Admin).

Code of Honour

You will be required to read, accept the [Faculty of Science Code of Honour](#). To do this every student **must** complete the 'Code of Honour Pledge' quiz under Tests & Quizzes on the course Vula site. **This Pledge is mandatory.**

Lectures

Lecture videos and associated learning material will be uploaded to the Vula site under the appropriate Lessons tab.

Laboratory

You can expect three further lab activities in Q2, including a lab test. These lab activities will be a 'do at home' format. Further detailed information regarding the logistics will be forthcoming as soon as possible. The revised Q2 lab/tut calendar can be found on Vula under Resources/Admin.

Tutorial sessions

Tutorial sessions will be conducted in the 'Forums' tab in Vula. Participation is strongly encouraged but not mandatory. As far as reasonably possible participation will be aligned with the days you were allocated to. The format of these tutorials are problem-solving in a discussion format. Logistics of how this will work is forthcoming. The revised Q2 lab/tut calendar can be found on Vula under Resources/Admin.

Weekly Problem Sets (WPSs)

Each Friday a WPS will be uploaded to the Vula website Resources/WPS.

- Students are to work through all the problems (and are strongly encouraged to attempt the extra, textbook problems listed. (Students may consult with each other and should approach the course tutors for help if necessary.)
- During the following week, before the deadline (17h00 the next Friday) students must complete the WPS online in Vula (under Tests & Quizzes). Please note Vula will be open for the week from Monday at 09h00 to Friday at 17h00 to complete the WPS.
- These will be marked and allocated a grade.

Marks thus obtained for these weekly problem sets will contribute 10% towards the final course mark. Model solutions to the questions will be published in due course on Vula under Resources/WPS Solutions.

Short Leave

If a student wishes to be granted an exemption or extension for a course requirement as a consequence of a planned short absence from the course, a completed [Short Leave Application Form](#), with supporting documentation stapled behind it, must be submitted to the Course Convener at least three (3) working days prior to the period in question. Irreversible plans (such as flight bookings) must not be made before such leave has been approved.

Examinations

There will be no final exam in June and no supplementary exam for this course.

Assessment

For the remainder of the course, all assessments will be of a “continuous” nature. All assessments will be graded both for DP purposes and for you to receive feedback on your progress and performance.

Please see the revised DP requirements and assessment table below.

Assessment	Description	Weighting	Comment
Test record	Test 1	30%	(See Vula for test scope)
	Test 2	10%	(Test Scope ~3 weeks work, see Vula)
	Test 3	10%	(Test Scope ~3 weeks work, see Vula)
	Test 4	10%	(Test Scope ~3 weeks work, see Vula)
Weekly Problem Sets (WPS)		10%	
Laboratory record	Laboratory reports	15%	
	Laboratory test	15%	Full report due
Total		100%	

Test Schedule

Time: 12h00 to 12h00

Venues: Your Location

Dates: Test 2 12h00 Friday to 12h00 Monday 22-25 May

Test 3 12h00 Friday to 12h00 Monday 12-15 June

Test 4 12h00 Friday to 12h00 Monday 03-06 July

These tests will be shorter in length than a ‘normal’ invigilated class test.

DP Requirements

- A grade of 50% for the class record is required for a pass.
- Participation in all class tests.
- Submission of all lab activities.
- Obtain at least an average of 50% for all submitted lab activities.
- Submission of at least 80% of the remaining WPS's

Pass or Fail Requirements

Students who have met the DP requirements and who achieve an aggregate of 50% or greater will be given a final grade code of “Pass.”

There will be no final grade beyond the codes “Pass” or “Fail”. This is in accordance with the overarching decision made by UCT for F courses in 2020.

Reassessment

There are no reassessments.